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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/615,984

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Sang-Whook Kim

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EXAMINER

HALEY, JOSEPH R

ART UNIT

PAPER NUMBER

2627

DATE MAILED: 11/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/615,984

Applicant(s)

KIM ET AL.

Examiner

Joseph Haley

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15, 17-22, 31 and 32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 31 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 5, 7, 8, 10, 11, 13-15, 17, 18, 20 and 32 is/are rejected.
- 7) ☒ Claim(s) 3, 6, 9, 12, 19, 21 and 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Oonishi (US 5295125).

In regard to claim 1, Oonishi teaches a method of identifying a type of a disc, comprising: detecting an RPM (Rotation Per Minute) of the disc; and identifying a first disc type by comparing the RPM with a first reference value (fig. 6 see also column 7 lines 65-68 and column 8 lines 1-6).

In regard to claim 2, Oonishi teaches identifying of the first disc type includes determining whether the disc is a DVD(-) type or a DVD(+) type (Oonishi teaches discriminating between a CD and a DVD. A DVD must be either a (+) or a (-).

In regard to claim 8, Oonishi teaches an apparatus identifying a type of a disc, comprising: a motor rotating the disc; and a system controller identifying the type of the disc by comparing an RPM of the disc detected using a frequency signal generated at the motor with a first reference value (fig. 6 see also column 7 lines 65-68 and column 8 lines 1-6).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-5, 10-11, 13, 15, 17-18 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oonishi in view of Ono et al. (US 6822936).

In regard to claim 4, Oonishi teaches all the elements of claim 4 except measuring reflectivity of the disc; and identifying a second disc type between a one-time recordable type and a re-recordable type by comparing the reflectivity of the disc with a second reference value.

Ono et al. teaches measuring reflectivity of the disc; and identifying a second disc type between a one-time recordable type and a re-recordable type by comparing the reflectivity of the disc with a second reference value (fig. 2 element 2090).

The two are analogous art because they both deal with the same field of invention of discriminating optical discs.

At the time of invention it would have been obvious to one of ordinary skill in the art to provide the apparatus of Oonishi with the Ono et al. The rationale is as follows: At the time of invention it would have been obvious to provide the apparatus of Oonishi with the Ono et al. because it would allow a user to determine whether or not a disc can be re-written.

In regard to claim 5, Ono et al. teaches identifying of the second disc type includes determining that the disc is the one-time recordable disc type if the reflectivity is higher than the second reference value and that the disc is the re-recordable disc type if the reflectivity is not higher than the second reference value (fig. 2 element 2090).

In regard to claim 10, see claim 4 rejection above.

In regard to claim 11, see claim 5 rejection above.

In regard to claim 13, Ono et al. teaches measuring a reflectivity of light from a disc to identify the disc format as a one-time recordable type if the reflectivity is higher than a reflectivity reference value and as a recordable type if the reflectivity is less than the reflectivity reference value (fig. 2)

Oonishi teaches measuring an RPM of the disc to identify the disc format as a DVD(-) type disc if the RPM is lower than a speed reference value or as a DVD(+) type if the RPM is higher than the speed reference value (fig. 6 see also column 7 lines 65-68 and column 8 lines 1-6).

In regard to claim 15, Oonishi teaches the measuring the RPM comprises using a frequency signal generated by a motor that rotates the disc (fig. 1 element 60 the rotary motor generates a frequency signal to move the motor).

In regard to claim 17, see claim 14 rejection above.

In regard to claim 18, Ono et al. teaches setting the reflectivity reference value to identify the disc as a DVD-R or a DVD+R type if the reflectivity is between 45% and

80% and as a DVD-RW or DVD+RW type if the reflectivity is between 18% and 30% (paragraph 74).

In regard to claim 32, see claim 13 rejection above.

Claims 7, 14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oonishi in view of Ono et al further considered with Aoki (US 6210773)

In regard to claims 7, 14 and 20 Oonishi teaches all the elements of claims 7, 14 and 20 except the detection of the RPM is performed after converting a motor control mode rotating the disc into a CLV (Constant Linear Velocity) servo mode based on a wobble signal.

Aoki teaches the detection of the RPM is performed after converting a motor control mode rotating the disc into a CLV (Constant Linear Velocity) servo mode based on a wobble signal (column 1 lines 40-41).

The three are analogous art because they all deal with the same field of invention of recording on optical discs.

At the time of invention it would have been obvious to one of ordinary skill in the art to provide the apparatus of Oonishi and Ono et al. with the speed control of Aoki. The rationale is as follows: At the time of invention it would have been obvious to provide the apparatus of Oonishi and Ono et al. with the speed control of Aoki because wobble speed control can control the speed of the disc according to address information.

In regard to claim 20, it is inherent that there would be stable motor control if the disc is identified as any type of disc.

***Allowable Subject Matter***

Claims 3, 6, 9, 12, 19, 21-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: The prior art fails to teach all of the elements of claims 3, 6, 9, 12, 19, 21-22, 31 in combination with any other reference.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Claim 32 is allowed.

***Response to Arguments***

Applicant's arguments filed 4/3/06 have been fully considered but they are not persuasive. On page 9 paragraph 2 lines 2 and 3 applicant argues that Oonishi fails to disclose "identifying a first disc type by comparing the RPM with a first reference value". The examiner maintains this rejection because as shown in fig. 6 of Oonishi time  $t_1$  is used as a reference value for the time it takes for the RPM to reach that value. Also substrate A has a faster RPM until the two speeds are equal. The apparatus compares the time it takes for the two substrates to reach the first reference RPM. Therefore this anticipates this claim.

In regard to claim 2, the applicant argues that Oonishi does not teaches determining whether the disc is a DVD (-) type or a DVD (+) type. However, the examiner maintains this rejection because Oonishi teaches discriminating between a CD and a DVD. When Oonishi determines the disc is a DVD, because all DVD's are a + or -, it inherently determines that it is a + or - DVD. The claim does not specify discriminating between a DVD (-) type or a DVD (+) type.

In regard to claim 4, applicant argues on page 8, paragraph 1, that Ono et al. only discloses using reflectivity to discriminate between two re-writeable types of discs. However, it is quite clear from fig. 2 elements 2090 and 2100 that Ono et al. uses the reflectivity to discriminate both re-writeable and non re-writeable media.

In regard to claims 7 and 14, applicant requests a reference that shows speed is controlled by a wobble signal. The examiner provides Aoki (US 6201773), which discloses CLV control being carried about by a wobble signal (column 1 lines 40-41).

Applicant's arguments with respect to claim 27 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not



mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Haley whose telephone number is 571-272-0574. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on 571-272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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